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STAFF REPORT AND RECOMMENDATION

ON CONSISTENCY DETERMINATION

Consistency Determination No.	**CD-117-99**
Staff:	JRR-SF
File Date:	12/16/1999
45th Day:	01/30/2000
60th Day:	02/14/2000
Commission Meeting:	02/01/2000

FEDERAL AGENCY: Corps of Engineers

DEVELOPMENT LOCATION: Lower Mission Creek, Santa Barbara (Exhibit 1)

DEVELOPMENT DESCRIPTION: Lower Mission Creek flood-control improvements (Exhibit 2-9)

STAFF NOTE

The Coastal Commission staff sent a memorandum, dated January 18, 2000 (Exhibit 10), to the Corps of Engineers requesting additional information. On February 23 and 24, 2000, the Commission staff received responses to its memorandum (Exhibit 11 and 12) and additional supporting information from the City of Santa Barbara and the Corps of Engineers. The deadline for completion of the staff recommendation was February 24, 2000, which did not give staff sufficient time to review the new information and revise its draft recommendation. Therefore, the staff has published its initial recommendation, which does not reflect the new information, and has attached the letters from the City and Corps to this report. The staff will review these letters and supporting information

before the Commission meeting and, if appropriate, revise its recommendation for the hearing on March 14, 2000.

EXECUTIVE SUMMARY

The Corps has submitted a consistency determination to improve flood protection on Mission Creek, in the City of Santa Barbara. The proposed project would increase the channel capacity to 3400 cubic feet per second (cfs) and would thereby provide approximately a 20-year storm level of protection. Seven bridges along the study reach would be replaced. Additionally, the project includes a new culvert bypassing the oxbow upstream of Highway 101 ("oxbow bypass"). The oxbow would be left in place as a low flow channel. The project includes planting of native riparian species along sloped banks stabilized by riprap, creation of 0.6 acres of wetlands and riparian habitat adjacent to the oxbow, and enlargement of sloped planting areas. The creek banks would consist of either a vertical wall or a combination vertical wall and riprap sideslope. The combination vertical wall and riprap sideslope would consist of vertical wall for the bottom half, while ungrouted slope would form the upper half. Native riparian vegetation would be planted within the riprap. Existing natural stream bottom would be maintained and stream bottom that is now concrete lined would be restored to natural conditions, except for immediately underneath bridges and through the oxbow bypass.

The flood control facility within the coastal zone consists primarily of vertical walls, with two small sections that include short walls with a vegetated riprap slope above the walls. Sections 30236 and 30233 of the Coastal Act prevent the Commission from approving this stream alteration unless it is the least damaging feasible alternative. The Commission believes that there are possible alternatives to the proposed design of the flood-control facility south of Highway 101 that minimize the need to harden the banks of the creek. The most environmentally beneficial alternative appears to be the use of vegetated riprap or short floodwalls with vegetated riprap above the walls. Without an analysis of these alternatives, the Commission cannot conclude that the proposed project is the least environmentally damaging alternative.

The proposed project includes impacts to estuarine and riparian wetland resources. Sections 30236 and 30233 of the Coastal Act prevent the Commission from approving this stream alteration unless it includes feasible mitigation. The Corps proposes to mitigate for these impacts by designing the project to include creation of riparian habitat on the banks of the stream. For most of the length of the proposed project, the stream banks would consist of low floodwalls with vegetated riprap slopes above the walls. However, the consistency determination does not include a detailed final mitigation and monitoring plan, without which, the Commission cannot determine if the Corps'

mitigation would adequately replace the habitat resources affected by the proposed project.

Mission Creek provides habitat for two federally listed endangered species, the steelhead trout and the tidewater goby. Section 30240 prevents the Commission from approving an activity within an environmentally sensitive habitat area unless it is a resource dependent activity and avoids significant disruption to the habitat values. The proposed project includes in-stream excavation that results in potential impacts to both the steelhead trout and tidewater goby. The Corps has not yet completed its consultation with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service. Without this consultation, the Commission cannot determine if the project would significantly disrupt the habitat values of the endangered species in the creek.

The proposed flood-control facility provides the Corps with an opportunity to restore water quality resources in Mission Creek by incorporating appropriate measures or technologies into the project design. Section 30231 of the Coastal Act requires the restoration of water quality resources where feasible. The Commission believes that the proposed project provides the Corps with an opportunity to reduce non-point source pollution discharge. The Corps consistency determination does not include an analysis of this issue, and therefore, the Commission cannot determine if there are feasible measures to restore water quality.

The proposed project includes the removal of sediment from the stream. Section 30233 of the Coastal Act requires sediment removed from coastal streams to be used to restore sand supply on local beaches. Although the Corps' consistency determination does not evaluate the suitability of this sediment for beach replenishment purposes, it proposes to dispose of excess material at local landfills. Without this analysis, the Commission cannot evaluate the project for consistency with the sand supply policies of the Coastal Act.

The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. Section 30251 of the Coastal Act provides for the protection of visual resources within the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. However, the Corps has not evaluated an alternative to the project that does not include the construction of floodwalls, and thus avoiding the visual impacts. Additionally, the Corps does not provide detailed description of its proposed measures to minimize visual impacts from the proposed project. Without this information, the Commission cannot evaluate the project's consistency with the visual policies of the Coastal Act.

The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project

and commits to coordination with the State Historic Preservation Officer (SHPO). However, without the benefit of the SHPO's analysis, the Commission cannot determine if the project is consistent with Section 30244 of the Coastal Act.

SUBSTANTIVE FILE DOCUMENTS:

1. Draft Environmental Impact Statement/Environmental Impact Report for Lower Mission Creek Flood Control Project, Santa Barbara, California, December 1999

2. Biological Assessments; Lower Mission Creek Flood Control Project, Santa Barbara, California, December 1999.

3. Draft Fish and Wildlife Coordination Act Report, Lower Mission Creek Flood Control Project, Santa Barbara, California, U.S. Fish and Wildlife Service, September 1999.

STAFF SUMMARY AND RECOMMENDATION:

I. Project Description.

The proposed project would develop a flood-control facility on Mission Creek in Santa Barbara with a capacity of 3,400 cubic feet per second (cfs) and would thereby provide approximately a 20-year storm level of protection. Seven bridges along the study reach would be replaced including De la Guerra Street, Ortega Street, Cota Street, De la Vina Street, Gutierrez Street, Chapala Street, and Mason Street Bridges. Additionally, the project includes a new culvert bypassing the oxbow upstream of Highway 101 ("oxbow bypass"). The culvert would cross the highway, Montecito Street, and the railroad tracks before rejoining the creek just upstream of the Chapala Street Bridge. The culvert would be covered only across Montecito Street down to its confluence at Chapala Street Bridge; this portion would consist of two concrete boxes (12 ft x 10.5 ft). The open portion of the culvert beginning just upstream of Highway 101 would be a 25- foot- wide rectangular concrete channel. The open channel would be approximately 200 linear feet, while the concrete box culvert would be approximately 350 feet in length. The oxbow would be left in place as a low flow channel.

The project includes planting of native riparian species along sloped banks stabilized by riprap, creation of 0.6 acres of wetlands and riparian habitat adjacent to the oxbow, and enlargement of sloped planting areas. Land acquisitions would provide for the widening of the creek and creation of habitat expansion zones at several locations (as many as six) along Lower Mission Creek. The habitat expansion zones would be planted with trees native to coastal California. Species planted may include western sycamore (*Platanus*

racemosa), cottonwood (*Populus fremontii*), coast live oak (*Quercus agrifolia*), California laurel (*Umbellularia californica*), wax myrtle (*Myrica californi*a), hollyleaf cherry (*Prunus ilicifolia*), and white alder (*Alnus rhombifolia*).

The creek banks would consist of either a vertical wall or a combination vertical wall and riprap sideslope. The combination vertical wall and riprap sideslope would consist of vertical wall for the bottom half, while ungrouted riprap (15 inches thick) at a 1.5:1 (Vertical to Height ratio) slope would form the upper half. The height of the vertical wall in this combination design would vary along the entire length of the project area. Riprap would be overlain on a layer of native rock and soil, with topsoil distributed through the interstices of the riprap, and covered with 9 inches of prepared topsoil. Concrete pipes in varying sizes (up to a maximum three feet in diameter) would be placed in between the riprap to allow planting of native trees and vegetation. Several species of riparian trees, including western sycamore, cottonwood, and coast live oak would be planted from 1 gallon nursery stock into cylindrical planters embedded within the riprap and spaced 40 feet apart.

Willow branches would be placed into prepared soil below the riprap in dense rows with the expectation that approximately 20% would sprout vegetatively and find their way through gaps in the riprap. Other native understory species, including arroyo willow (*Salix lasiolepis*), Mexican elderberry (*Sambucus mexicana*), and coyote brush (*Baccharis pilularis*), would be seeded into the topsoil, or set out from liner stock.

Combination riprap and vertical wall would be the dominant bank treatment upstream of Highway 101, except in two short reaches just upstream of Haley-De la Vina Bridge and De la Guerra Bridge. Below Highway 101, the combination riprap and vertical wall would be applied along the southeast bank, starting from midpoint between Chapala Bridge and Mason Bridge down to midpoint between Mason Bridge and State Bridge. In total, about 4,275 feet of Mission Creek would be finished with this combination design. The remaining length of the project reach would consist of vertical walls.

Existing natural stream bottom would be maintained and stream bottom that is now concrete lined would be restored to natural conditions, except for immediately underneath bridges and through the oxbow bypass. Restoration to natural bottom would necessitate excavation and removal of one to four feet of streambed in the reach between De la Guerra Street bridge and Ortega Street Bridge, one to three feet of streambed between Ortega Street Bridge and Bath Street Bridge, two to three feet of streambed between Cota Street Bridge and Haley-De la Vina Bridge, and two to four feet of streambed between Haley-De la Vina Bridge and Gutierrez Street Bridge. In the reach between Chapala Street Bridge and State Street Bridge, there would be excavation and/or fill of one foot of streambed. In the final reach of Lower Mission Creek from State Street Bridge

to Cabrillo Boulevard Bridge, the streambed would be cleared of leftover footing from earlier structures.

II. Status of Local Coastal Program.

The standard of review for federal consistency determinations is the policies of Chapter 3 of the Coastal Act, and not the Local Coastal Program (LCP) of the affected area. If the Commission certified the LCP and incorporated it into the CCMP, the LCP can provide guidance in applying Chapter 3 policies in light of local circumstances. If the Commission has not incorporated the LCP into the CCMP, it cannot guide the Commission's decision, but it can provide background information. The Commission has partially incorporated the Santa Barbara LCP into the CCMP.

III. Federal Agency's Consistency Determination.

The Corps of Engineers has determined the project to be consistent to the maximum extent practicable with the California Coastal Management Program.

IV. Motion:

*I move that the Commission agree with consistency determination **CD-117-99** that the proposed project is consistent to the maximum extent practicable with the enforceable policies of the California Coastal Management Program (CCMP).*

A. Staff Recommendation:

Staff recommends a **NO** vote on the motion. Failure of this motion will result in a disagreement with the determination and adoption of the following resolution and findings. An affirmative vote of a majority of the Commissioners present is required to pass the motion.

B. Resolution To Disagree With Consistency Determination:

The Commission hereby disagrees with the consistency determination by the Corps of Engineers on the grounds that the consistency determination for the proposed project does not contain enough information for the Commission to determine if the project is consistent with the enforceable policies of the CCMP.

V. Procedures

A. Necessary Information:

Section 930.42(b) of the federal consistency regulations (15 CFR Section 930.42(b)) requires that, if the Commission's objection is based on a lack of

information, the Commission must identify the information necessary for it to assess the project's consistency with the CCMP. That section states that:

> *If the State agency's disagreement is based upon a finding that the Federal agency has failed to supply sufficient information (see Section 930.39(a)), the State agency's response must describe the nature of the information requested and the necessity of having such information to determine the consistency of the Federal activity with the management program.*

As described fully in the findings below, the Commission has found this consistency determination to lack the necessary information to determine if the proposed project is consistent with Sections 30231, 30233, 30236, 30240, 30244, and 30251 of the Coastal Act. In order to evaluate the project's consistency with the CCMP, the Commission needs the following information:

B. Endangered Species. Final Biological Opinions from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on the projects impacts to the tidewater goby and steelhead trout.

C. Estuarine Habitat. A detailed analysis of the portion of the flood control-facility within the coastal zone that describes the following:

1. The purpose and need for the full-length vertical floodwalls in the coastal zone.

2. The purpose and need for the short walls in the coastal zone.

3. The possibility of achieving the same level of flood control protection from a project that does not include any floodwalls.

4. Any resource impacts from a flood-control project that does not include the floodwalls.

5. The reason why the use of short floodwalls with vegetated riprap was rejected as an alternative for most of the project within the coastal zone.

D. Mitigation. Revise the mitigation plan to include the following:

1. Identify its habitat restoration goals.

2. Provide more details on the biologic, hydrologic, geologic nature of the restoration activities.

3. Revise the monitoring to use performance standards instead of limiting the monitoring to five years. The Corps should identify its restoration goals and

monitor the area until those goals are accomplished. If the goals are not reached, the Corps should implement improvements to the habitat until the resource goals are met. Monitoring should continue on a periodic basis after the resource goals have been attained.

4. Revise the mitigation plan to contain a long-term commitment to maintain restored areas.

5. Add restrictions to the mitigation plan so it will contain an evaluation of the effect of long-term maintenance of the flood-control facility on restored habitat resources, and commitments to protect the habitat from the maintenance of the flood-control facility.

E. Water Quality. The Corps should revise its consistency determination to evaluate the feasibility and benefit from installing devices at street storm drains, at the Highway 101 culvert, or any other mechanisms or measures that could be used to capture or filter non-point source discharges. Additionally, the Corps should evaluate the possibility of designing the proposed wetland creation project, north of Highway 101, to capture non-point source pollution discharges to the estuary and ocean.

Finally, the consistency determination should include a runoff and erosion control plan that minimizes non-point source pollution associated with construction activities from the proposed project.

F. Sand Supply. The Corps' consistency determination should include an evaluation of the suitability of material removed from the creek to be used for beach replenishment. This evaluation should analyze the physical and chemical characteristics of the sediment to determine if it is suitable for beach replenishment. If the material is suitable, the evaluation should consider the feasibility of using that material for beach replenishment purposes. Additionally, since the proposed maintenance activities provide for the regular removal of sediment from the stream, these maintenance activities should also be analyzed for these concerns.

G. Visual Resources. The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. The Commission has two concerns with respect to the Corps analysis of visual impacts. First, as described above, it is not clear that the construction of vertical walls is necessary. Until the Corps provides additional information that justifies the need for the walls, the Commission considers the use of vegetated riprap to be a less visually damaging alternative. If the Corps can demonstrate that the vertical walls are necessary, the second concern of the Commission is that aesthetic design improvements

proposed by the Corps are not described in detail and the Commission cannot determine if the improvements would sufficiently mitigate for visual impacts.

H. Cultural Resources. The consistency determination should be revised to include an analysis of the effects from the project on historical and archaeological resources from the State Historic Preservation Officer.

VI. Findings and Declarations:

The Commission finds and declares as follows:

A. Stream Alteration. The Coastal Act provides for the protection of stream resources. Section 30233(a) provides that:

> *(a) The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:*
>
> *(l) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities.*
>
> *(2) Maintaining existing, or restoring previously dredged, depths in existing navigational channels, turning basins, vessel berthing and mooring areas, and boat launching ramps.*
>
> *(3) In wetland areas only, entrance channels for new or expanded boating facilities; and in a degraded wetland, identified by the Department of Fish and Game pursuant to subdivision (b) of Section 30411, for boating facilities if, in conjunction with such boating facilities, a substantial portion of the degraded wetland is restored and maintained as a biologically productive wetland. The size of the wetland area used for boating facilities, including berthing space, turning basins, necessary navigation channels, and any necessary support service facilities, shall not exceed 25 percent of the degraded wetland.*
>
> *(4) In open coastal waters, other than wetlands, including streams, estuaries, and lakes, new or expanded boating facilities and the placement of structural pilings for public recreational piers that provide public access and recreational opportunities.*

(5) Incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines.

(6) Mineral extraction, including sand for restoring beaches, except in environmentally sensitive areas.

(7) Restoration purposes.

(8) Nature study, aquaculture, or similar resource dependent activities.

Section 30236 of the Coastal Act provides that:

Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the floodplain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat

1. Existing Resources. The Corps of Engineers proposes to develop a flood-control facility on Lower Mission Creek, a 1.1-mile section of Mission Creek from the intersection of Canon Perdido and Castillo Streets to Cabrillo Boulevard, located in the City of Santa Barbara. This section of Mission Creek flows southeast through the City of Santa Barbara and eventually discharges into the ocean approximately 450 feet east of Stearn's Wharf.

The Mission Creek drainage, the largest of several coastal stream systems in the Santa Barbara region, originates from the Santa Ynez Mountains in the Los Padres National Forest, north of Santa Barbara. The drainage, including its tributaries, is approximately 11.5 square miles in size. The headwaters of Mission Creek and its major tributary, Rattlesnake Creek, occur at 3,500 feet in the Santa Ynez Mountains. During the rainy season, Mission Creek ranges from a comparatively small stream carrying an average maximum of 370 cubic feet per second (cfs) during non-flood years to a creek capable of destructive peak flows of 5120 cfs[1]. The incidental trickle moving down the channel after mid-summer appears to be primarily urban runoff which enters Mission Creek via

[1] Hydrology data from the U.S. Army Corps of Engineers 1995a.

storm drains along its course. Mission Creek also periodically receives water from the Santa Barbara water tunnels.

The condition of the natural resources varies along the length of the Mission Creek watershed. The creek flows through steep terrain and the vegetation of the drainage is relatively undisturbed in its upper reaches, north of the Santa Barbara Botanical Garden. On this portion of the drainage, riparian woodland vegetation occurs along Mission Creek and its tributaries, and the surrounding vegetation includes chaparral and coast live oak woodland. South of the Botanical Garden, the terrain becomes flatter and the creek shows more signs of disturbance associated with the greater density of adjacent commercial and residential development. Within the project study area, between Canon Perdido Street and Cabrillo Boulevard, the natural habitat of the creek is highly modified. Only remnants of native vegetation remain in the creek and estuary, and the area adjacent to the creek consists of buildings, ornamental landscapes, parking lots, and roads. Natural habitat is significantly limited by urban development including periodic clearance of vegetation and accumulated sediments from the channel, the indiscriminate use of the channel as a dumping ground for refuse, intermittent and private hard siding of its channels, housing along both sides of the channel, bridges carrying roads over the channel, discharge of storm water lines into the channel (especially underneath bridges), and the concentration of business developments within or adjacent to residential neighborhoods.

In lower Mission Creek, three areas of concrete interrupt the natural channel bottom and banks. Approximately 0.3 miles of a concrete trapezoidal channel occurs from Los Olivos Street to Mission Street. An approximately 0.8-mile concrete trapezoidal channel occurs from Valerio Street to Canon Perdido, the point where the project study area begins. Lastly, a 0.1-mile rectangular concrete-bottomed and stone-walled channel occurs in the project study area from the Southern Pacific Railroad tracks to Chapala Street. In addition, the banks and stream bottom in the project area have been altered with grout stone, sacked concrete, pipe and wire revetment, gabions, bulkhead structures, and other stabilization structures to prevent bank erosion and flooding to adjacent development. Thus, the physical characteristics of the creek have been modified to some extent, especially along the lower portions.

Although the Mission Creek watershed is not entirely pristine, the drainage as a whole is an important riparian system for the area. Mission Creek and its main tributary, Rattlesnake Creek, are designated by Santa Barbara County as prime examples of freshwater streams in the County. This designation maintains that these creeks deserve special protection because the upper Mission Creek drainage supports extensive areas of quality riparian communities with high wildlife value.

2. **Allowable Use and Alternatives.** Section 30233 of the Coastal Act identifies eight allowable uses for the dredging diking and filling of coastal waters. The proposed project includes the removal of sediment from the stream and the construction of floodwalls, which the Coastal Act defines as fill. Flood-control facilities are not defined as an allowable use under Section 30233(a). Section 30236 of the Coastal Act, however, allows for construction of such facilities, if they are necessary to provide flood protection, water supply, or habitat benefits. Section 30236 is a more specific policy that clearly allows alterations of streams for flood-control purposes. The Coastal Act, therefore, allows dredging and filling of streams for flood-control purposes, even though that activity is not identified as an allowable use under Section 30233(a).

However, the project must meet all of the requirements of Section 30236 in order to be an allowable flood-control project. That section allows alterations of streams for flood-control purposes if there is no other feasible method for protecting existing structures in the floodplain and where such protection is necessary for public safety or to protect existing development. According to the Corps flooding of Mission Creek has been an historic problem for the area. In its Feasibility Study, the Corps states that:

> *The primary problem affecting the lower Mission Creek study area is the threat of flooding to property which affects the health, safety and well-being of the residents of Santa Barbara. This is substantiated by flood records dating back to 1862. Records show that the area has suffered at least 20 considerable floods since 1900. Increased urbanization of the Santa Barbara area over the last century has contributed to increased runoff, and therefore, increased flooding frequencies.*

…

> *Records since 1900 show that floods occurred in the Santa Barbara County area in 1906, 1907, 1909, 1911, 1914, 1918, 1938, 1941, 1943, 1952, 1958, 1962, 1964, 1967, 1969, 1973, 1978, 1980, 1983, 1995, and 1998.*

Clearly, the area is subject to flooding and because of the urbanization of the lower watershed, the flooding has the potential to have significant effects on existing development. However, the Coastal Act limits the development of flood-control facilities to those where there is no other feasible method for protecting existing structures. This test is similar to the alternatives requirement of Section 30233 of the Coastal Act, which prevents the Commission from authorizing dredging or filling within a stream unless the activity is the least damaging feasible alternative. The Corps analyzed several different alternatives to the proposed project. These alternatives include several different flood-control

designs and the no-project alternatives. The Corps' analysis of non-structural alternatives includes flood plain management, flood proofing, and relocation. The Corps describes these alternatives as follows:

> *The City of Santa Barbara has been a participant in the National Flood Insurance Program which requires the City to maintain a Flood Plain Management Plan to reduce future flood plain hazards. The Reconnaissance Study also investigated the flood warning system and evacuation element of flood plain management. The study revealed that a flood warning system would be impractical to implement. Storm waters falling in the upper Mission Creek watershed reach the lower Mission Creek area in less than one hour, which would be too short a time for local residents to respond to any flood warning.*
>
> *Flood proofing measures examined in the Reconnaissance Study include blocking flood water from entering a structure, jacking the first floor of a structure above a flood surface elevation, and constructing a flood wall or ring dike. Blocking the flood waters at individual structures was not considered feasible due to likely failure of the structures' walls as a result of hydrostatic and hydrodynamic forces. Raising (jacking) structures above flood water elevations was determined to be too expensive and uneconomical given the frequency of flooding in the area. Flood walls or ring dikes were not considered a feasible alternative due to inadequate space, aesthetic considerations, and the difficulty in ensuring proper closure of openings in the wall or dike during a flood.*
>
> *Finally, relocation of structures in the flood plain was considered. However, Santa Barbara is a highly developed area which has very little space to relocate structures out of the floodplain.*

The Commission agrees that the lower Mission Creek is an urban stream and relocation or retrofitting existing development would likely be cost prohibitive and infeasible. However, the Commission does not conclude that lack of an alternative to stream alteration means that the proposed project is the least damaging feasible alternative. The Corps submittal did not consider alternative flood-control facilities that do not require hardening of the stream banks, especially in the coastal zone.

The flood-control facility within the coastal zone consists primarily of vertical walls, with two small sections that include short walls with a vegetated riprap slope above the walls. The Corps did not include in its submittal analysis of the engineering and design decisions that required this feature. The Commission is

concerned about the preservation of as much of the natural estuarine habitat as feasible. To that end, the Commission believes that there may be alternatives to the proposed design of the flood-control facility south of Highway 101 that minimizes the need to harden the banks of the creek and estuary. The most environmentally beneficial alternative appears to be the use of vegetated riprap or short floodwalls with vegetated riprap above the walls. The Corps did not consider these alternatives in its environmental documents. The Commission assumes that the lack of consideration of these alternatives is due to the constraints of existing development on the banks of the creek. However, the Commission cannot find that the proposed project is the least damaging feasible alternative unless it has data that demonstrates that the use of vegetated riprap slopes with and without flood walls is not feasible or is more environmentally damaging than the proposed alternative. Therefore, the Commission finds that the consistency determination lacks sufficient information for the Commission to conclude that the proposed project is consistent with the alternatives requirements of Section 30233 and 30236 of the Coastal Act. Without a complete alternatives analysis, the Commission cannot conclude that the proposed project is only method for protecting existing structures in the floodplain.

3. **Mitigation.** The proposed project includes impacts to estuarine and riparian wetland resources. The Corps proposes to mitigate for these impacts by designing the project to include creation of riparian habitat on the banks of the stream. For most of the length of the proposed project, the stream banks would consist of low floodwalls with riprap slopes above the walls. These slopes would be covered with soil and planted with native vegetation.

However, after reviewing the proposed mitigation plan, the Commission believes that it is incomplete. The following issues need further elaboration:

1. The mitigation and restoration plan does not completely identify its habitat restoration goals.

2. The mitigation/restoration plan needs to be more detailed in order for the Commission to determine its consistency with the Coastal Act.

3. The monitoring is limited to five years and is not based on performance standards. The Corps should identify its restoration goals and monitor the area until those goals are accomplished. If the goals are not reached, the Corps should implement improvements to the habitat until the resource goals are met. Monitoring should continue on a periodic basis after the resource goals have been attained.

4. The mitigation plan does not contain a long-term commitment to maintain restored areas.

5. An evaluation of the effect of long-term maintenance of the flood-control facility on restored habitat resources.

In conclusion, without a detailed final mitigation and monitoring plan, the Commission cannot determine if the Corps' mitigation would adequately replace the habitat resources that would be affected by the proposed project. Therefore, the Commission finds that the Corps' consistency determination does not contain enough information for the Commission to determine if the project is consistent with the mitigation requirements of Sections 30233 and 30236 of the Coastal Act.

B. . <u>Environmentally Sensitive Habitat Resources</u>. The Coastal Act protects sensitive habitat resources of the coastal zone. Section 30240 of the Coastal Act provides that:

> *(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas.*

Mission Creek provides habitat for two federally listed endangered species, the steelhead trout and the tidewater goby. The steelhead trout uses Lower Mission Creek as a migratory corridor to the upper reaches of the watershed, which is suitable for fish spawning. In addition, the Mission Creek estuary where provides habitat for the tidewater goby. The proposed project includes in-stream excavation that could result in potential impacts to both the steelhead trout and tidewater goby. The Corps proposes to mitigate for these impacts as follows:

> *The project construction will restore a soft bottom to Mission Creek or retain that soft bottom if it is already present. ... With thorough planning of construction schedules, these potential impacts* [to steelhead trout] *can be avoided entirely. For all construction activities which alter the banks or stream bottom above Yanonali Street, machinery must be excluded from the channel and stream bottom any time significant flows pass down Mission Creek between mid-December and mid-May. All construction activities above Yanonali Street should be restricted to the months between the beginning of June and the end of November. During those months, a double strand of silt fencing material should be strung across the channel below the current area of work to retain sediments dislodged from the banks or creek bottom. The strands need to be at least 30 feet apart to facilitate the lower fence trapping any sediments which swirl past the upper.*
>
> *….*

> *The estuarine waters through which steelhead would swim to reach spawning sites higher in the watershed are the very habitat occupied throughout the year by gobies. Mitigation measures is included in the project construction schedule that complete all work between Yanonali Street and Cabrillo Boulevard between April and June, because gobies will be more inclined to enter the estuary as summer conditions begin to prevail.*
>
> *To minimize any impacts to gobies, it will be necessary to close off both ends of the area to be de-watered with some impermeable barrier, then have a biologist knowledgeable of tidewater gobies and the ecological niche they inhabit seine the entire impoundment for gobies. The biologist must have appropriate authorization from the US Fish and Wildlife Service for such incidental take. Any and all gobies netted this way will have to be freed into the estuarine water outside the barrier. Once cleared of fish, the impounded half channel can be de-watered without impacts to tidewater gobies.*[2]

The Corps is in the process of coordinating with the U.S. Fish and Wildlife Service (Service) and the National Marine Fisheries Service (NMFS) pursuant to the requirements of Section 7 of the Endangered Species Act. The consultation process is not completed and the Commission does not have the benefit of the complete input from the Service and NMFS on the issue of protection of endangered species. Without a completed Section 7 consultation, the Commission cannot determine if the Corps' mitigation measures would adequately minimize impacts to these listed species. This issue is also of concern in this case because the Corps has identified some potential impacts to these species from its proposed project but relies on the Section 7 process to resolve these concerns. Specifically, the Corps states that:

> *The potential effects on foraging behavior and migration through the estuary of mechanical vibration transmitted through the ground and water cannot be evaluated based on any experimental data known to the USACOE. That such a disruption of normal behavior may occur seems probable. The level of such an effect must be weighed during Section 7 Consultation.*
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> *Construction on the banks would remove what little vegetation now grows along the estuary. To the extent that plant growth provides important cover for steelhead as they enter the estuary, its removal could perhaps have a direct effect* [on] *their migratory behavior.*

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[2] Corps federal consistency determination for the proposed Mission Creek Project, p. D-8.

> *The level of such an effect also cannot be evaluated for lack of experimental data. Section 7 Consultation must also evaluate this possible effect.*
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> *…*
>
> *Construction upstream of Yanonali Street will still be constrained: no mechanized equipment permitted in significant stream flows between December 15 and the end of March. As construction moves farther upstream, silt curtains will be deployed below the immediate area of construction to reduce suspended sediments in the water. In all likelihood, these fences probably will not trap all sediments and some will be carried downstream to the estuary. The concentration of such sediments cannot be estimated, hence the possible indirect effects to steelhead which may be present somewhere downstream after the end of March cannot be evaluated at this time. The magnitude of such indirect effects must also be evaluated during Section 7.*[3]

A similar analysis is in the Biological Assessment for the tidewater goby. The Corps clearly identifies these issues as unresolved and is relying on the Section 7 process to address these potential impacts. Without further information on the nature of these impacts and mitigation, if necessary, the Commission can not make the findings that the proposed project will not significantly disrupt these species. In other words, these issues need to be resolved before the Commission can find the project consistent with the habitat policies of the Coastal Act. Therefore, the Commission finds that the consistency determination for the proposed project lacks sufficient information for the Commission to find that this project is consistent with Section 30240 of the Coastal Act.

C. <u>Water Quality</u>. The Coastal Act protects the quality of coastal waters, including streams. Section 30231 of the Coastal Act provides that:

> *The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation,*

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[3] Biological Assessment, p. 14-15

maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

As stated above, Mission Creek is located in a relatively urban part of the City of Santa Barbara. The water quality of Mission Creek has been degraded by the discharge of non-point source pollution associated with urban land uses. The proposed flood-control facility provides the Corps with an opportunity to restore water quality resources in Mission Creek by incorporating appropriate measures or technologies into the project design. The Commission recognizes that there are currently discharges of non-point source pollution into Mission Creek and that the proposed project would not alter the nature or increase the volume of these discharges. The reconstruction of the flood-control facility, including the replacement of bridges, installation of a culvert under Highway 101, and construction of wetlands just north Highway 101, provide the Corps with an opportunity to design the facility to incorporate measures into the project in order to reduce non-point source pollution. Section 30231 of the Coastal Act requires the restoration of water quality resources where feasible. The Corps could install devices at street storm drains or at the Highway 101 culvert that capture or filter discharges. The Commission recognizes that there are costs and environmental issues that may affect the feasibility of such measures. The installation and maintenance of filters at the major discharge areas may require substantial capital costs and the use of a filter or other device on the culvert at Highway 101 may result in impacts to sand supply and steelhead trout migration. These issues were not evaluated in the Corps' environmental documents. In order for the Commission to evaluate this issue, the Corps must provide additional analysis of these potential water quality improvements.

A possible measure to reduce non-point source pollution discharges to the estuary and ocean is the construction of a wetland, as proposed, north of Highway 101. However, the Corps' commitment to construct such a wetland is dependent on cleanup of a hazardous waste at that site. That cleanup project is not a Corps project and any wetland restoration is not assured until the cleanup issues are resolved. Therefore, the Corps cannot commit to the restoration project at this time. If the cleanup issues at that site are resolved, the Corps should include a wetland restoration plan as part of its project and the wetlands should be designed to maximize capture and filtration of pollutants.

In addition, the proposed construction activities may have water quality impacts from construction equipment and grading activities. The environmental documents indicate that the Corps would prepare a runoff and erosion control plan. The details of this plan are necessary for the Commission to evaluate water quality impacts from the proposed project. Without this plan, the Commission cannot determine if the project is consistent with the water quality policies of the Coastal Act.

In conclusion, the Commission finds that the consistency determination for the proposed project does not contain enough information for the Commission to evaluate the consistency of the project with the water quality polices of the Coastal Act.

D. Sand Supply. Section 30233(d) of the Coastal Act provides for the use of suitable material removed from coastal streams to be used for beach replenishment purposes. This section provides that:

> *(d) Erosion control and flood control facilities constructed on water courses can impede the movement of sediment and nutrients which would otherwise be carried by storm runoff into coastal waters. To facilitate the continued delivery of these sediments to the littoral zone, whenever feasible, the material removed from these facilities may be placed at appropriate points on the shoreline in accordance with other applicable provisions of this division, where feasible mitigation measures have been provided to minimize adverse environmental effects. Aspects that shall be considered before issuing a coastal development permit for such purposes are the method of placement, time of year of placement, and sensitivity of the placement area.*

The proposed project includes the removal of sediment from the stream. With such activities, the Coastal Act requires the use of suitable sediment for beach replenishment purposes, if it is feasible. However, in this case, the Corps proposes to dispose of this sediment at nearby landfills. The Corps' environmental documents do not evaluate the suitability of this material for beach replenishment or the feasibility of using it for that purpose. In order to make such an evaluation, the Corps must analyze the physical and chemical characteristics of the sediment. If the material is predominately sand and relatively free of contaminants, the Corps should use the material for beach replenishment purposes, unless it can demonstrate that beach replenishment is not feasible. Additionally, the proposed maintenance activities provide for the regular removal of sediment from the stream. These maintenance activities must also be analyzed for sand supply concerns. Without these evaluations, the Commission cannot determine if the project is consistent with the sand supply policies of the Coastal Act. Therefore, the Commission finds that the proposed project does not contain enough information to evaluate the project for consistency with the sand supply policies of the Coastal Act.

E. Visual Resources. The Coastal Act protects visual resources of the coastal zone. Section 30251 of the Coastal Act provides that:

> *The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted*

> *development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting.*

The proposed construction of the vertical walls south of Highway 101 could adversely affect visual resources of the coastal zone. In its environmental documents, the Corps proposes to design the project in a manner that minimizes visual impacts. The Corps describes addresses visual quality as follows:

> *Aesthetic values would be increased by planting native riparian types of vegetation on the upper slope of the creek. Establishment of vegetation on the creek banks would enhance aesthetic values of the project area compared to other alternatives and existing conditions. Vertical walls would not be visible to people walking along the creek banks, as the upper banks would be covered with vegetation. Aesthetic treatment would be applied to visible lower banks to minimize impacts of the vertical walls. During the public scoping meeting, people voiced their concerns regarding aesthetic resources located within the project area. The new constructed channel would be pleasing and natural looking. Their concerns are addressed by implementation of this alternative. The visual quality of the project reach would have positive impacts on tourists visiting the City of the Santa Barbara. Within a few years, planted vegetation would be mature, and trees would increase the visual value of the project area. Lower vertical walls may not be visible to people walking on a side of the creek banks due to the vegetation growth on upper banks. It should be noted, however that full height vertical walls would be used for most of the distance between State and Mason Streets. These walls would also receive aesthetic treatment, including the use of colored concrete and forms that would mimic the appearance of sandstone or natural vertical creek banks.*

As stated above, most of the Creek within the coastal zone would be developed with vertical walls and would not appear as a natural stream. Although the area is already developed with some man made structures, it still has some natural appearance. The proposed project would change that appearance to a channelized hardened stream.

The Commission has two concerns with respect to the Corps' analysis of visual impacts. First, as described in the Habitat Section above, it is not clear that the construction of vertical walls is necessary. Until the Corps provides additional information that justifies the need for the walls, the Commission considers the use of vegetated slopes to be a less visually damaging alternative. If the Corps can demonstrate that the vertical walls are necessary, the second concern of the Commission is that aesthetic design improvements proposed by the Corps are not described in detail and the Commission cannot determine if the improvements would sufficiently mitigate for visual impacts. Without this information, the Commission cannot determine if the project is consistent with the visual policies of the Coastal Act. Therefore, the Commission finds that the consistency determination for the proposed project does not provide enough information to determine if the project is consistent with the view protection policies of the Coastal Act.

F. Archaeological Resources. The Coastal Act provides for protection of historic and archaeological resources. Section 30244 of the Coastal Act provides that:

> *Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.*

The proposed project is located in an area that contains both historic structures and archaeological sites. The environmental documents for the Mission Creek project state that there are historic and archaeological resources potentially affected by the proposed project. The Corps commits, in its EIS, to coordinating with the State Historic Preservation Officer (SHPO). However, the Coastal Act requires implementation, or at least identification, of the mitigation measures to protect resources identified by the SHPO. Without the benefit of the SHPO's analysis, the Commission cannot determine if the project is consistent with Section 30244 of the Coastal Act. Therefore, the Commission finds that it cannot determine if the proposed project is consistent with the archaeological policies of the Coastal Act.